

**SAFETY SUPPLEMENT**

## TECHNICAL MANUAL

**AIRCRAFT  
EMERGENCY RESCUE  
INFORMATION  
(FIRE PROTECTION)**

THIS PUBLICATION SUPPLEMENTS TO 00-105E-9 REVISION 3, DATED 15 JANUARY 2001, LOCATED AT WEB SITE:<http://137.244.215.33/ti/tilta/documents/to00-105E-9.htm>.

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TO THE ATTENTION OF ALL AFFECTED AIR FORCE PERSONNEL.**

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**9 MARCH 2001****1. PURPOSE.**

This supplement provides instructions for update of TO 00-105E-9 Revision 3, dated 15 January 2001, affecting Chapter 2, General Rescue, Forcible Entry, and Ejection Seat Information. This update adds information regarding operations involving hot brakes and engine ingestion of Fire Fighting Agents.

**2. INSTRUCTIONS.**

- a. This information, if it applies to your operation, can be downloaded and printed from this web site by the end user. Use the current Adobe Reader which is 4.05C. This software is free and can be downloaded from Adobe.com at their web site. PDF files should be downloaded with the Reader running on your PC to reduce download time.
- b. This supplement to Chapter 2 adds information based on recent aircraft incidents involving hot brakes and the use of fire fighting agents around aircraft engines. The new update should be added to Chapter 2 in TO 00-105E-9 Revision 3. The pages affected in this supplement start and end with page 2-16. The end user should save this file and print the affected pages, then replace the pages in the old document with the newly printed pages. This supplement uses a portable document format (pdf). File this supplement according to current regulations.

**NOTE**

The operational user file is the whole or selected printed pages from the web site placed in a binder used for local, transient operations or both. This information should also be included in mobility boxes where applicable. If your unit or a part of your unit is serving elsewhere, they should be informed of this Safety Supplement and how to obtain it. See TO 00-5-2 paragraphs 1-1.4, 1-1.4.1, and 1-1.6 for Local Reproduction of TOs and Digital Media guidance.

THE END

## 2-50. AIRCRAFT HOT WHEEL AND BRAKES.

2-51. Aircraft hot wheel and brakes pose serious considerations for Fire Protection personnel. These considerations are: (1) Danger Zones are areas where exploding wheel, brake and tire assemblies can injure personnel, (2) Safe Zones are areas of approach to the wheels, brakes and tires if a fire is present and requires immediate suppression, and (3) Heat Dissipation times before the wheel and brake assemblies can be safely approached if there has been no fire or damage. (Aircraft tires use fuse plugs designed to melt at a given temperature and relieve tire air pressure.)

The following is general information that is common to most aircraft:

2-52. Danger Zones. Avoid inflated main landing gear tire side area within 300 feet. (See Figure 2-19.)

2-53. Safe Zones. Approach wheel/brake and tire assemblies from the front or rear of assemblies at a 45 degree angle. Munitions loaded on the aircraft must also be taken into consideration when determining the proper approach.

2-54. Heat Dissipation. After aircraft has stopped, wait 30 minutes for the heat in wheel and brake assemblies to dissipate before relocating the aircraft. In a parked condition, and when air circulation is at a minimum, it takes 12 to 15 minutes for brake heat to transfer to the wheel and tire bead. Braking conditions may increase heat and therefore the approach time requirement from 45 to 60 minutes, assuming there is no fire.

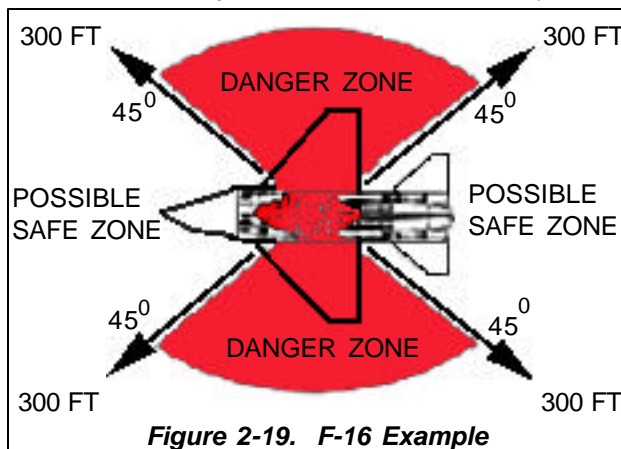
## 2-55. HEATED BRAKE DON'TS.

2-56. There are certain actions the fire department must be aware of and ensure the proper procedures are followed if brakes are in a heated condition. The following DON'TS references TO 4B-1-1:

- A. Do NOT Set parking brakes while overheated conditions exist.
- B. Do NOT approach landing gear from either side - approach only from the front or rear.
- C. After excessive use of brakes, do NOT taxi aircraft after clearing the active runway.
- D. Do NOT tow aircraft into a crowded parking area.
- E. Do NOT move the aircraft until the brakes have cooled.

## WARNING

F. Do NOT attempt to physically determine wheel or brake temperature by mechanical means. (Explanation: extensive research has been shown that there is NO SAFE OR FEASIBLE WAY to mechanically DETERMINE wheel or brake temperature. WHEN A DANGEROUS OVERHEAT CONDITION EXISTS, as a result, the risk to personnel is not warranted.)



## 2-57. ENGINE INGESTION OF FIREFIGHTING AGENTS.

2-58. Engine Ingestion of Firefighting Agents: Fire fighters must use "CAUTION" to prevent the inadvertent discharge of firefighting agents into aircraft engines and cockpits. Only when it is absolutely necessary for the purposes of preservation of life or the aircraft, should any **firefighting agent** be discharged into the aircraft engine or cockpit area. The chemical composition of firefighting agents can result in a corrosive chemical reaction when in contact with these components. Unnecessary or inadvertent discharge of firefighting agents into these areas can decrease the probability of critical component salvage. Aircraft maintenance personnel must be notified anytime there was a possibility of firefighting agent being discharged into any of these critical components.